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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/770,634	01/29/2001	Fumio Yoshii	1858-25	6760
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23117 7590 04/08/2003

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EXAMINER
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KRISHNAN, GANAPATHY

ART UNIT	PAPER NUMBER
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1623

9

DATE MAILED: 04/08/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/770,634

Applicant(s)

YOSHII ET AL.

Examiner

Ganapathy Krishnan

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 and 15-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____.  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

The amendment filed on January 13, 2003 has been received and entered into the record. The following information provided in the amendment affects the application:

1. Claims 13 and 14 have been cancelled.
  2. Claims 1-12 have been amended.
  3. New claims 15-27 have been added.
  4. Change to the paragraph on page 12, lines 14-18 in the specification.
  5. A revised PTO-1449.
  6. A revised declaration citing the Japanese application # 11-177517 filed 23 June 1999, to which priority is not claimed.
  7. A declaration under 37 CFR 1.131.
  8. A certified English translation of Japanese application # 11-177517.
- Claims 1-12 and 15-27 are pending.

### ***Claim Objections***

Claims 5 and 6 are objected to because of the following informalities: The term "self-cross-linking" in line 2 of claim 5 should be changed to self-cross-linked. The term "dose" in claim 6 is misspelled. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 24 and 27 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 24 and 27 are drawn to a medical product, a cosmetic product, a sanitary product, an agricultural water retention product, a chromatography carrier, an industrial material, or a soil additive comprising self cross-linked alkyl cellulose.

The terms medical product, a cosmetic product, a sanitary product, an agricultural water retention product, a chromatography carrier, an industrial material, or a soil additive are very broad. The claims do not state what type of products are encompassed by these terms and one of ordinary skill in the art would not be reasonably apprised of how to use the said self cross-linked alkyl cellulose to make the products recited in these claims.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The 112-second paragraph rejections in the previous office action have been withdrawn.

New rejections are presented below.

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Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 16 and 17 recite the terms “may be substituted by a hydroxyl group or carboxyl group”. It is not clear from the recitation of the claims if the hydroxyl and carboxyl groups are present as substituents on the said alkyl group or is the hydroxyl and carboxyl groups replace the carbon atoms of the said alkyl group.

Claim 15 recites “a product which comprises”. In the absence of a specific name of the said product the claim is rendered indefinite.

Claims 24 and 27 are drawn to a medical product, a cosmetic product, a sanitary product, an agricultural water retention product, a chromatography carrier, an industrial material, or a soil additive comprising self cross-linked alkyl cellulose.

It is not clear what products or materials are being claimed. The claims are rendered indefinite without the actual product or material being specified.

Claims 2-12, 18-23, 25 and 26 are also rendered indefinite since they are all dependent on base claims that are indefinite.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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Claims 1, 2, 5, 6 and 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Leavitt (Journal of Polymer Science, 1961, vol. 51, pp 349-357).

Leavitt drawn to Cross-linking of celluloses by high energy radiation discloses a process for producing cross-linked alkyl celluloses wherein the alkyl groups have 1-3 carbons substituted with hydroxyl and carboxy groups. The cross-linking is effected by gamma radiation of a 1% solution in water using a dose rate of 0.1M rad/hr. The alkyl celluloses used are hydroxyethyl cellulose, carboxymethyl cellulose and carboxymethylhydroxyethyl cellulose (see page 350, Experimental). The irradiation also produced a gel (see page 350, Discussion, lines 1-3).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leavitt (Journal of Polymer Science, vol. 51, pages 349-357, 1961) in combination with Wach et al (1A07 "Radiation Processing of Biodegradable Polymer 3; "Cross-linking of Cellulose Ethers At High Concentrated Aqueous Solution", 2000, English translation), Wach et al (2G05 "Radiation Crosslinking of Cellulose Ethers and Its Biodegradability", 2000, English translation), and Wach et al (1008 "Radiation Processing of Biodegradable Polymer (2) Hydrogel from Cellulose

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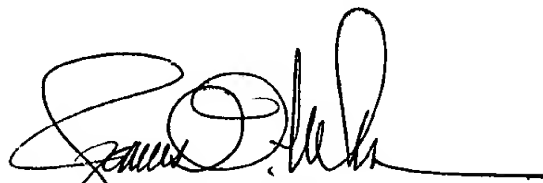
Derivatives", 1999, English translation), Schweiger (USPN 4,242,506) and Assarsson (USPN 3,898,143) <sup>has been</sup> ~~is being~~ withdrawn.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ganapathy Krishnan whose telephone number is 703-305-4837. The examiner can normally be reached on 8.30am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 703-308-4624. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-3014 for regular communications and 703-305-3014 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.

GK  
April 6, 2003

  
JAMES O. WILSON  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600